



Repeater: NØDX 145.190 MHz (Input 144.590 / Tone 192.8 Hz)


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The Eastern Iowa DX Bulletin

Number 214, March 22, 2024

Craig Fastenow, KØCF, Editor

This bulletin is a compilation of **currently active** DX operations (or those that will become active within the current week) from recent issues of the three DX bulletins listed below and other sources. Credit for the source is given at the end of each article.

Articles are ordered by the entity's callsign prefix from the *ARRL DXCC Entities List*. Callsigns used are in **bold** with dates of operation highlighted in **red**. Clickable links are provided for QSL and other information wherever possible. Note that articles may be edited for grammar, language, style and accuracy and will remain in *The Bulletin* while active; articles that are announcements of ongoing operations, or that have no specified end date, will be removed after three weeks.

Also included is a [Propagation](#) section, updated daily; and a [Contest Calendar](#) of upcoming popular contests.

DX News items are courtesy of:

The ARRL DX Bulletin

The bulletin is available at <http://www.arrl.org>

425 DX News, A.R.I. DX Bulletin (425DXN)

Edited by Mauro Pregliasco, I1JQJ & Valeria Pregliasco, IK1ADH

425 DX News Home Page: <https://www.425dxn.org/>

425 DX News Google Group: <https://groups.google.com/g/425eng>

DX Newsletter (DXNL)

Edited by Andreas Salder, DK5ON

A weekly service of DARC Committee "DX", <http://www.darcdxhf.de>

Propagation data is from:

National Oceanic and Atmospheric Administration's

[Space Weather Prediction Center](#)

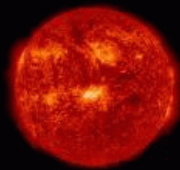
Dr. Tony Phillips' [SpaceWeather.com](http://www.SpaceWeather.com), used by permission

Contest data courtesy of the [WA7BNM Contest Calendar](#)



Solar-Terrestrial Data

23 Mar 2024 2348 GMT
 SFI: 209 SN: 146
 A-Index: 29
 K-Index: 4
 X-Ray: C4.3
 304Å: 187.3 @ SEM
 Ptn Flx: 2450
 Elc Flx: 370000
 Aurora: 5/n=1.99
 Mag (Bz): 0.5
 Solar Wind: 527.2
 Geomag Field **ACTIVE**
 Sig Noise Lvl S3-S4
 Current Solar Image



<http://www.norbh.com>
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DX News

3D2, FIJI. Dom, 3Z9DX will once again be active as **3D2AJT** from Nadi, Fiji Islands starting **March 18th for 30-40 days**. The callsign is in memory of the late Yasuo "Zorro" Miyazawa, JH1AJT, who passed away on March 23, 2022. QSL via [ClubLog's OQRS](#).
 -[425DXN # 1716 March 23, 2024] (0322-0426)

5R, MADAGASCAR. Eric, F6ICX is QRV as **5R8IC** until **March 31st**. Activity is holiday style on 40 to 10 meters using mainly CW with low power. The last two weeks here will be spent being active on Satellite QO-100. QSL direct to [F6ICX](#).
 -[ARRL DX Bulletin # 5 February 1, 2024] (0202-0405)

6W, SENEGAL. Willy, ON4AVT will be QRV as **6W7/ON4AVT** from Warang from **February 3rd to April 16th**. Activity is on 80 to 10 meters using SSB and various digital modes, and on Satellite QO-100. QSL to [ON4AVT](#), [ClubLog's OQRS](#).
-[ARRL DX Bulletin # 5 February 1, 2024] (0202-0419)

7P, LESOTHO. A multi-national team (DJ9RR, EI2II, EI2JD, EI3ISB, EI3IXB, EI4HH, EI5GM, EI5GSB, EI6FR, EI8KN, EI9HQ, EI9FBB & PA3EWP) will be operating as **7P8EI** from **March 19th to 30th**. The group plans to set up 8 rigs for HF and will be active on all bands and modes. QSL via [MØOXO's OQRS](#).
-[DXNL # 2397 March 13, 2024] (0315-0329)

C6, BAHAMAS. Jay, WA1JAY, pays a visit to Paradise Island (NA-001) from **March 15th to April 2nd**. QRV as **C6A/WA1JAY** on HF (SSB, FT4/8) and via FM satellites. QSL via [ClubLog's OQRS](#) and LoTW.
-[DXNL # 2397 March 13, 2024] (0315-0405)

CEØZ, JUAN FERNANDEZ IS. Felipe, CE3SX will be active as **CBØZIX** from Juan Fernandez from **March 21st to April 4th**. He will be QRV almost exclusively on 6 meters SSB and FT8 (F/H). QSL via LoTW; traditional QSL cards will not be available.
-[425DXN # 1716 March 23, 2024] (0322-0405)

CE9, ANTARCTICA. Watch for **EM1/UW5EHR** (also **EM1U**) currently on the Akademik Vernadskyi base on Galindez Island (AN-006) **until the end of March**. He operates during his spare time. For more information see: <http://uac.gov.ua/en/>
-[DXNL # 2398 March 20, 2024] (0322-0329)

CE9, ANTARCTICA. There is a new operator at the Japanese base Showa, (Queen Maud Land - Prince Harald and Crown Prince Olav Coasts) group (AN-015) who will be active as **8J1RL**. QRV **until November** on 40-10m with 50W, mostly on FT8. For more information see: <http://polaris.nipr.ac.jp/~webcam/> and http://www.jarl.or.jp/Japanese/2_Joho/2-6_stations/8j1rl/8j1rl-index.html. QSL via JARL bureau.
-[DXNL # 2397 March 13, 2024] (0315-0405)

CE9, ANTARCTICA. Alex, UG1A, Ivan, UB1AQB, and Zahar (ex-UH4NAE) activate Vostok base **until the end of March** as **RI1ANC**. QSL via [RN1ON](#).
-[DXNL # 2395 February 28, 2024] (0301-0405)

CO, CUBA. Members of the Camaguey DX Group will be QRV as **T47C** and **CO9JAB** from Cayo Romano (NA-086) from **March 29th to 31st**. Activity will be on 80 to 10 meters using CW, SSB, and various digital modes. QSL direct to [IK2DUW](#).
-[ARRL DX Bulletin # 12 March 21, 2024] (0322-0405)

CO, CUBA. Team **T44DX** (namely CO1CB, CO1ND, CO2LKY, CO2ROD, CO5MK, CM1YC, CM2ARY, CM3EFM and CL1MAC) will be active from Isla de la Juventud (NA-056) on **March 21st-25th**. They will operate SSB, CW, FT8 (F/H) and FT4 on 160-10 meters, as well as via satellite. QSOs will be uploaded to LoTW. QSL via [RW6HS](#).
-[425DXN # 1711 February 17, 2024] (0315-0329)

DL, GERMANY. Special callsign **DM88YLF** celebrates International Women's Day (March 8th) **until the end of March**. QSL via the bureau.
-[DXNL # 2396 March 6, 2024] (0308-0329)

DL, GERMANY. The special event callsign **DAØRC** will be active around the FunkTag 2024 exhibition. QRV **until April 27th** with the special DOK FTK24. Sending a card is not necessary, as there will be an automatic bureau service and confirmations via the DARC's DCL system. Direct cards go only via [DL2VFR](#).
-[DXNL # 2396 March 6, 2024] (0308-0426)

DL, GERMANY. DARC Team SES will be active as **DL75AFUG**, **DL75AFUV** and **DP75AFUG** from **March 1st until April 30th** to mark the 75th anniversary of the first Amateurfunkgesetz (AfuG), the German amateur radio regulations that came into force on March 23, 1949. A certificate will be available, see <https://www.qrz.com/db/DP75AFUG> for information. QSL automatically via the bureau, or direct to [DL2VFR](#).
-[425DXN # 1713 March 2, 2024] (0301-0426)

DXCC TOP TWENTY. Here are the top 20 entities on ClubLog's "DXCC Most Wanted" list as of March 22, 2024:

1. P5	DPRK (North Korea)	11. 3Y/B	Bouvet Island
2. BS7H	Scarborough Reef	12. ZS8	Prince Edward & Marion Islands
3. CEØX	San Felix Islands	13. KH4	Midway Island
4. BV9P	Pratas Island	14. VKØM	Macquarie Island
5. KH7K	Kure Island	15. PYØS	Saint Peter And Paul Rocks
6. KH3	Johnston Island	16. KP5	Desecheo Island
7. FT/G	Glorioso Island	17. VPØS	South Sandwich Islands
8. 3Y/P	Peter 1 Island	18. KH5	Palmyra & Jarvis Islands
9. FT5/X	Kerguelen Island	19. ZL9	New Zealand Subantarctic Islands
10. YVØ	Aves Island	20. FK/C	Chesterfield Islands

For the complete list, see <https://clublog.org/mostwanted.php>
-[KØCF March 22, 2024] (0322-0405)

ER, MOLDOVA. Special callsign **ER3ØARM** celebrates the 30th anniversary of the Amateur Radio Society of Moldova (ER1KAA). Look for activity from March 20th to April 30th. QSL via the bureau, direct to [ER3ØARM](#), and LoTW.
-[425DXN # 1716 March 23, 2024] (0322-0503)

EX, KYRGYZSTAN. Bob, DU7ET is currently QRV as **EXØET**. Activity is on 40 to 10 meters, and possibly 160 meters, using mostly CW. QSL direct to [DU7ET](#).
-[ARRL DX Bulletin # 12 March 21, 2024] (0322-0412)

EY, TAJIKISTAN. Nodir, **EY8MM** has been active on 40 meters using CW around 0100z. QSL via [WØVTI](#).
-[ARRL DX Bulletin # 10 March 7, 2024] (0308-0329)

F, FRANCE. Celebrating the 135th anniversary of the official inauguration of the Eiffel Tower (March 31, 1889), Michel, F8GGZ will be active as **TM135TE** on **March 24th-31st**. QSL via the bureau.
-[425DXN # 1715 March 16, 2024] (0322-0405)

FG, GUADELOUPE. Jean-Luc, F1ULQ and Bert, FG8OJ will be QRV as **TO1Q** from **March 25th to April 8th**. Activity is on the HF bands and 6 meters using SSB and various digital modes. QSL via [F1ULQ](#), LoTW.
-[ARRL DX Bulletin # 12 March 21, 2024] (0322-0412)

FH, MAYOTTE. Marek, FH4VVK will be active as **TO4VV** from Pamandzi, Mayotte (AF-027) on **March 23rd-31st**, and again on **April 6th-7th**, **13th-14th** and **20th-21st**. QSL via [ClubLog's OQRS](#) and LoTW.
-[425DXN # 1714 March 9, 2024] (0322-0426)

FH, MAYOTTE. Ros 4Z5LA, Ruben 4Z5FI and Slava 4Z5MU will be active on various bands and modes as **TO5LA** from Mayotte (AF-027) from **March 28th to April 2nd**. They will participate in the CQ WW WPX SSB Contest (March 30th-31st). QSOs will be uploaded to ClubLog and LoTW. QSL via [4Z5FI](#).
-[425DXN # 1713 March 2, 2024] (0322-0405)

FM, MARTINIQUE. Miguel, EA1BP will be active holiday style as **FM/EA1BP** from Martinique (NA-107) from **March 23rd to April 1st**. He will participate in the CQ WW WPX SSB Contest (March 30th-31st) as **TO7O**. QSL via LoTW, or via [EA1BP](#).
-[425DXN # 1716 March 23, 2024] (0322-0405)

FO/A, AUSTRAL I. Haru, JA1XGI will be active as **TX5XG** from Raivavae (OC-114), Austral Islands from **March 27th to April 3rd**. He will operate mainly CW ("FT8 operation is the second choice", he says) on 40-6 meters, and will especially look for DX via Satellite IO-117. See <https://australvacation.amebaownd.com> for more information. QSL via LoTW, [ClubLog's OQRS](#), or via [JA1XGI](#).

-[425DXN # 1713 March 2, 2024] (0322-0405)

FS, SAINT MARTIN. Thomas, F4HPX, pays a visit to Saint Martin from **March 13th-15th and 24th-26th** as **FS/F4HPX**. QSL via [F4HPX](#).

-[DXNL # 2397 March 13, 2024] (0315-0329)

H4, SOLOMON IS. Bernhard, DL2GAC will be active again as **H44MS** from Malaita (OC-047), Solomon Islands from around **February 10th until April 25th**. He will be QRV daily, with activity on 160-6 meters SSB and some FT8. He will upload his log to ClubLog and LoTW. QSL via [DL2GAC](#), direct or bureau.

-[425DXN # 1707 January 20, 2024] (0209-0426)

HC8, GALAPAGOS IS. Rick, HC1MD (NE8Z), and Maria, HC1MM will be QRV as **HD8MD** and **HD8MM** respectively, from **March 20th to 29th**. Listen for HD8MM on SSB on 40 through 10 meters and HD8MD on CW, SSB, FT4 and FT8 (sometimes MSHV) on 40 through 6 meters (Grid Locator EI59ec). QSL via LoTW or via the bureau to [K8LJG](#) or [NE8Z](#).

-[ARRL DX Bulletin # 11 March 14, 2024] (0315-0329)

HI, DOMINICAN REPUBLIC. Jean, VA2VKG, will be active as **HI8/VA2VKG** from **March 15th until April 12th** on 40, 20, and 10m (CW, SSB). QSL via [VA2VKG](#).

-[DXNL # 2397 March 13, 2024] (0315-0412)

HI, DOMINICAN REPUBLIC. Special callsign **HI18ØRD** celebrates the 180th anniversary since the Dominican Republic declared its independence from Haiti (February 27, 1844). Look for activity on all bands and modes beginning **February 27th until April 30th**. Some 25 operators from five radio clubs will be part of the event. A certificate will be available, see <https://independencia2024.org/> for information.

-[425DXN # 1713 March 2, 2024] (0301-0503)

HS, THAILAND. Members of the Red Star Contest Club will be active holiday style as **E28AM/p** from Ko Chang Island (AS-125) on **March 22nd-25th**. They will operate CW, SSB and FT8 on 40-10 meters. QSL via [E21LLR](#).

-[425DXN # 1715 March 16, 2024] (0322-0329)

I, ITALY. Members of ARI Sondrio (IQ2UL) will operate special event station **II2AUT** from **March 25th to May 7th** for the World Autism Awareness Day. Back in 2007 the United Nations General Assembly declared April 2nd as World Autism Awareness Day to highlight the need to help improve the quality of life of autistic individuals so they can lead full and meaningful lives as an integral part of society. QSOs will be uploaded to ClubLog. QSL via the bureau and eQSL.

-[425DXN # 1715 March 16, 2024] (0322-0510)

I, ITALY. Special callsign **IY9MM** will be active on **March 1st-31st** to memorialize the experiments conducted by Guglielmo Marconi from the ship "Regina Elena" in the port of Augusta (March 9, 1914). QSL via LoTW, eQSL, or direct to [IT9MRM](#).

-[425DXN # 1712 February 24, 2024] (0301-0405)

J8, ST. VINCENT. Kevin, W1DED, will be active as **J8NKI** from Bequia Island (NA-025) from **March 23rd to April 1st**. Activity is on the HF bands. This includes being an entry in the upcoming CQ WW WPX SSB Contest (March 30th-31st). QSL to [W1DED](#), LoTW.

-[ARRL DX Bulletin # 12 March 21, 2024] (0322-0405)

OE, AUSTRIA. Special event station **OE1ØØRADIO** is active **until December 31st** to celebrate the 100th anniversary since regular radio transmissions began in Austria (October 1, 1924). QSL via the bureau.

-[425DXN # 1715 March 16, 2024] (0315-0405)

OE, AUSTRIA. Special event station **OE4ØLCR** is QRV **until July 31st** to celebrate the 40th anniversary of the Austrian Albert Schweitzer Society. QSL via operators' instructions.

-[ARRL DX Bulletin # 10 March 7, 2024] (0308-0329)

OZ, DENMARK. Stefan, DL7AOS will be active holiday style as **5P5K** from Romo Island (EU-125) from **March 23rd to April 6th**, possibly including an entry in the CQ WW WPX SSB Contest (March 30th-31st). He will operate SSB and digital modes on 80-6 meters. QSL via [DL7AOS](#) and LoTW.

-[425DXN # 1714 March 9, 2024] (0322-0405)

PA, NETHERLANDS. Laurens, PF3X and Barry, PC1K will be active as **PA24WAAD** from **March 23rd to April 7th** for the World Autism Awareness Day. QSL via [ClubLog's OQRS](#) and LoTW.

-[425DXN # 1716 March 23, 2024] (0322-0412)

PJ2, CURACAO. Andy, DK5ON will be active again as **PJ2/DK5ON** from Curacao (SA-099) on **March 11th to 27th**. He will operate SSB, CW and digital modes (FT4, FT8, RTTY) on 160-6 meters and satellites. QSL via LoTW, [ClubLog's OQRS](#), or via [DK5ON](#).

-[425DXN # 1713 March 2, 2024] (0308-0329)

PJ5, SABA & ST. EUSTATIUS. Rudi, DK7PE, continues his Caribbean trip and is now operating as **PJ5/DK7PE/p**. QRV on 40, 30, 17, 15m (CW only). QSL via [DK7PE](#).

-[DXNL # 2396 March 6, 2024] (0308-0329)

PJ7, SINT MAARTEN. Tom, AA9A will be QRV as **PJ7AA** from **March 2nd to 30th**. Activity will be on 40 to 6 meters using CW, SSB, FT8, and FT4. QSL direct to [AA9A](#), LoTW.

-[ARRL DX Bulletin # 9 February 29, 2024] (0301-0329)

PY, BRAZIL. Amauri, PP5BB, operates as **PV5B** **until the end of March** from Sao Francisco Island (SA-027). QSL via [PP5BB](#).

-[DXNL # 2398 March 20, 2024] (0322-0405)

SØ, WESTERN SAHARA. Station **SØ1WS** has been active on 10 meters using CW around 1730 to 1800z, and then later on 12 meters using SSB. QSL via [ClubLog's OQRS](#).

-[ARRL DX Bulletin # 12 March 21, 2024] (0322-0412)

SP, POLAND. Special callsign **SN55DIG** will be used by Adam, SQ9S **until the end of the year** to celebrate the 55th anniversary of the Diplom Interessen Gruppe. See <https://diplom-interessen-gruppe.info/> for information about the DIG. All QSOs will be confirmed automatically via the bureau.

-[425DXN # 1715 March 16, 2024] (0315-0405)

T32, E. KIRIBATI. A group of operators (DF4GV, DJ7TO, DK2AMM, DL1KWK, DL2AWG and DL4SVA) will be QRV as **T32EU** from Kiritimati Island (OC-024) from **March 12th to 27th**. Activity will be with three stations on 160 to 6 meters using CW, SSB, RTTY, and FT8. QSL via [DL2AWG](#), LoTW.

-[ARRL DX Bulletin # 10 March 7, 2024] (0308-0329)

T8, PALAU. Ichy, JH7IPR, signs **T88UW** from Koror Island (OC-009) from **March 15th to 24th**. QRV mostly on FT8, some CW and SSB. QSL via [JH7IPR](#), [ClubLog's OQRS](#), LoTW.

-[DXNL # 2397 March 13, 2024] (0315-0329)

TY, BENIN. Gerard F5NVF, Luc F5RAV and Abdel MØNPT (7X2TT) will be active as **TY5C** from Cotonou, Benin from **March 2nd to 29th**. They will operate CW, SSB and FT8 on various bands (6 meters included) and will also be QRV via satellite (QO-100). QSL direct to [F5RAV](#), or via LoTW.

-[425DXN # 1712 February 24, 2024] (0301-0329)

V4, ST. KITTS AND NEVIS. Pete, GØTLE will be QRV as **V4/GØTLE** from St. Kitts (NA-104) from **March 23rd to April 6th**. Activity will be holiday style on 40 to 10 meters using CW and SSB. QSL via LoTW, or to [GØTLE](#).

-[ARRL DX Bulletin # 12 March 21, 2024] (0322-0405)

VP5, TURKS AND CAICOS IS. Operators AF3K, KH6M and W2TT will be QRV as **VQ5P** from Turks Island (NA-003) from **March 26th to April 2nd**. Activity will be on 160 to 6 meters using CW, SSB, FT8, and FT4. QSL via [N2OO](#), LoTW.

-[ARRL DX Bulletin # 12 March 21, 2024] (0322-0405)

XW, LAOS. Vincent, **XW4KV** is QRV from Vang Vieng **until June 1st**. Lately he has been active on 15 meters using FT8 around 1100z. QSL via [F4BKV](#).

-[ARRL DX Bulletin # 12 March 21, 2024] (0322-0602)

YO, ROMANIA. Celebrating the 95th anniversary of the first amateur radio association in Romania's Arad County, special callsigns **YR95AR, YR95CC, YR95CH, YR95IN, YR95LI, YR95PE** and **YR95SE** will be active from **February 16th until May 31st**. The event is being organized by C.S. Radioclub Admira (YO2KBQ), the successor of the club that was established almost a century ago. See <https://www.qrz.com/db/YR95AR> for more information.

-[425DXN # 1711 February 17, 2024] (0216-0531)

Z3, NORTH MACEDONIA. Al, DJØLZ will be QRV as **Z36T** from Skopje from **February 25th to March 25th**. QSL direct to [DJØLZ](#).

-[ARRL DX Bulletin # 8 February 22, 2024] (0223-0329)

Z6, REPUBLIC OF KOSOVO. Boris, S53BB, remains active as **Z68BB** **until April 1st** from Pristina. More info at <https://www.qrz.com/db/Z68BB>. QSL via [EA5GL](#), ClubLog (no LoTW).

-[DXNL # 2398 March 20, 2024] (0322-0405)

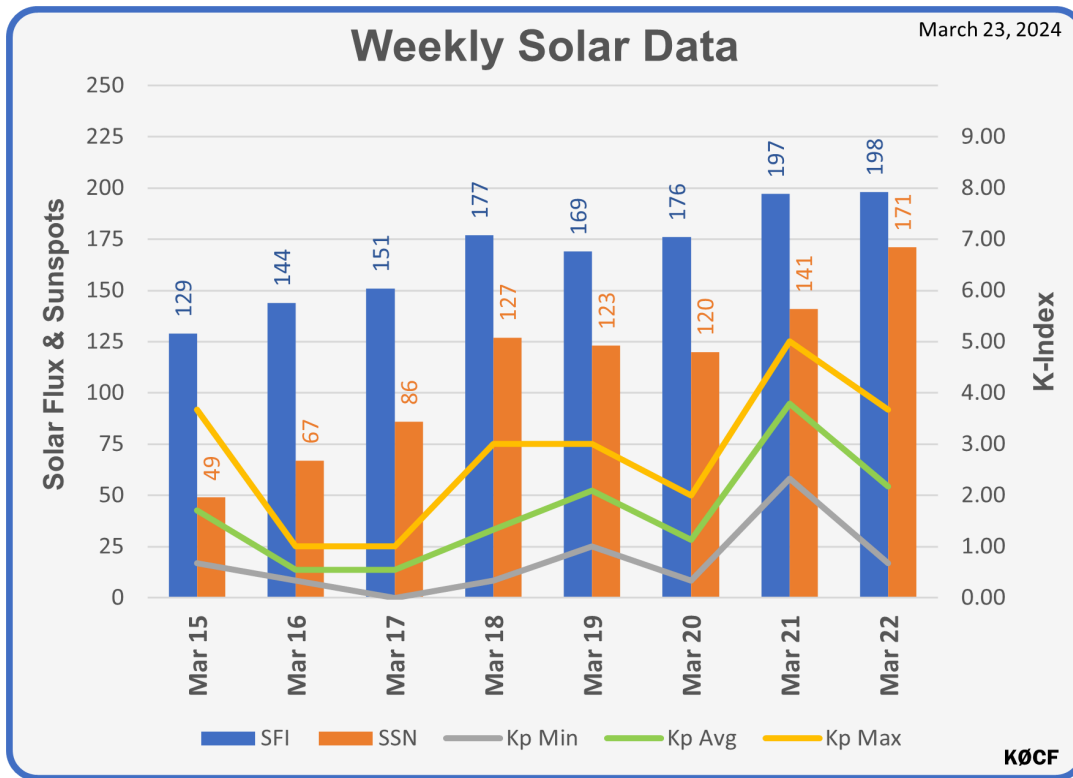
ZC4, UK SOVEREIGN BASE AREAS ON CYPRUS. Adrian, GØKOM will be active as **ZC4MK** from **March 26th to April 2nd**, including an entry in the CQ WW WPX SSB Contest (March 30th-31st). QSL via LoTW, [ClubLog's OQRS](#), or via [GØKOM](#).

-[425DXN # 1713 March 2, 2024] (0322-0405)

ZD7, ST HELENA. Torsten, DL9GG, is QRV as **ZD7GG** with a straight key on CW **until the end of March**.

-[ARRL DX Bulletin # 11 March 14, 2024] (0315-0405)

Propagation (Updated daily)



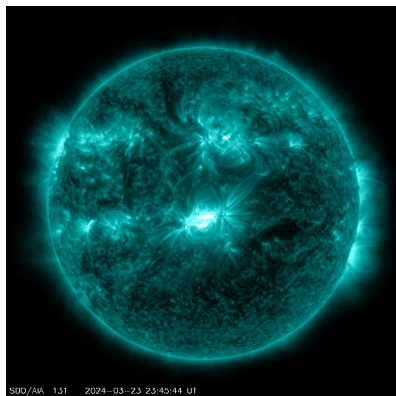
The Weekly Solar Data chart plots Solar Flux Index (SFI), Sunspot number (SSN) and Planetary K-Index (Kp) for the past 8 days. With 8 Planetary K-index readings each day, only the minimum, average and maximum K-index values are plotted. **Note:** You may click [here](#) or on the chart above to see the same data for the past month.

The Daily Solar Flux Index, Sunspot number, Planetary K-index, Solar Flux predictions and Solar Flare data used in this bulletin have been collected by KØCF from the U.S. Department of Commerce's NOAA Space Weather Prediction Center.

The propagation graphs above are the creations of KØCF and are unique in space weather reporting.

Please Note: The graphs are high resolution .PNG files which you may view in greater detail using your browser's "zoom" feature. Alternatively, right click on the graph and select "Open Image in New Tab" to enlarge it, or "Save Image As..." to save it to your computer for further analysis.

NASA's current view of the Sun at a wave-length of 131 Angstroms. This wavelength shows incredible solar detail.



Click [here](#) or on the image to view as a full screen 48-hour video loop. It is fascinating!

Propagation Summary

For the 8 day period from Friday, March 15th through yesterday, March 22nd.

The average solar flux was 173, up 44 points from the previous week, with a weekly high

of 198 on Friday, March 22nd, following a low of 129 on March 15th.

The average sunspot count was 119, up 45 from last week, peaking at 171 on Friday, March 22nd after a weekly low of 49 on March 15th.

The Planetary K-index weekly average was 2.8 with a maximum of 5.0 on Thursday, March 21st, resulting in minor geomagnetic storm conditions.

Solar flare activity since March 15th has been extremely high with 21 major flares, the largest of which was a major X 1.1 event on Saturday, March 23rd.

Propagation Data

Major solar flares, Friday, March 15th through 1544 UTC, March 23rd.

#	Date	UTC	Mag.
1	Mar 23	1522	M 3.7
2	Mar 23	1453	M 1.5
3	Mar 23	1402	M 5.3
4	Mar 23	1352	M 5.2
5	Mar 23	1337	M 1.9
6	Mar 23	1311	M 1.2
7	Mar 23	1247	M 1.3
8	Mar 23	0738	M 3.1
9	Mar 23	0709	M 2.4
10	Mar 23	0655	M 1.1
11	Mar 23	0133	X 1.1
12	Mar 22	2032	M 4.2
13	Mar 20	2255	M 1.9
14	Mar 20	0736	M 7.4
15	Mar 19	2327	M 2.1
16	Mar 19	0229	M 1.4
17	Mar 18	1919	M 6.7
18	Mar 18	0414	M 1.1
19	Mar 18	0332	M 2.7
20	Mar 16	2155	M 1.1
21	Mar 16	1635	M 3.5

(NOAA's graph of recent flare activity: [GOES-X-Ray-Flux](#))

From the NOAA Space Weather Prediction Center, here are the probabilities of major solar flares and the predicted 10.7 cm Solar Flux for the next 3 days. NOAA updates this information daily.

Date	M-Flares	X-Flares	Solar Flux
Mar 23	50%	10%	195
Mar 24	50%	10%	190
Mar 25	50%	10%	188

Looking farther ahead, here is the NOAA Space Weather Prediction Center forecast of 10.7 cm radio flux and maximum Planetary K-index (Kp) for the next 12 days. This data is updated by NOAA every Monday (last updated on March 18, 2024).

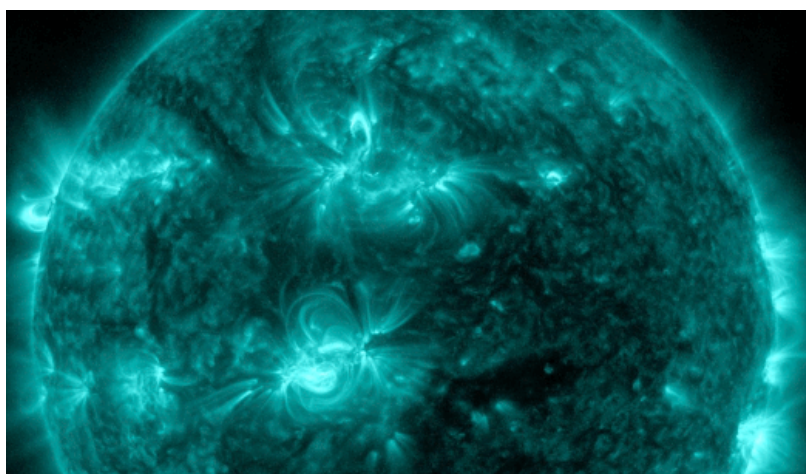
Date	Flux	Kp
Mar 23	155	2
Mar 24	155	2
Mar 25	152	2
Mar 26	160	2

Date	Flux	Kp
Mar 27	160	2
Mar 28	162	3
Mar 29	165	3
Mar 30	165	2

Date	Flux	Kp
Mar 31	160	2
Apr 1	155	2
Apr 2	155	2
Apr 3	155	3

Strong X-Class Solar Flare

The sun just produced a solar flare so strong, it took two sunspots to make it. The long-duration X1.1-class flare started on March 23rd around 0130 UT when both AR3614 and AR3615 erupted. NASA's Solar Dynamics Observatory recorded the double blast:



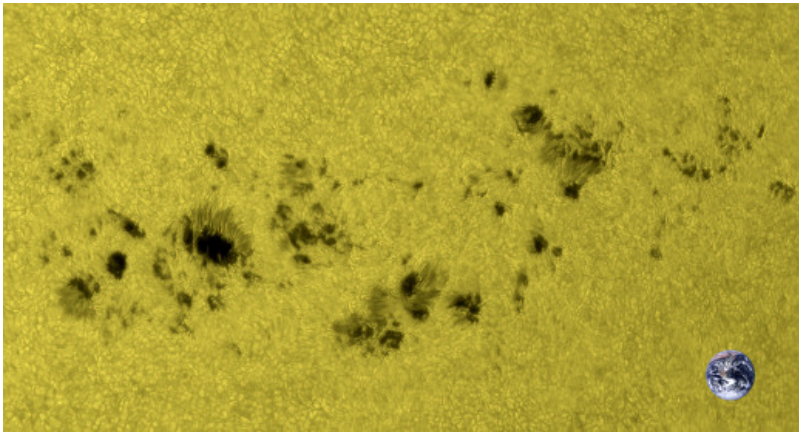
This is called a "sympathetic solar flare." Sympathetic flares are pairs of flares that occur almost simultaneously in widely-spaced sunspots, not by chance, but because of an unseen physical connection. Nearly-invisible magnetic loops in the sun's corona connect some sunspots, allowing explosive instabilities to travel from one to the other. Some sympathetic flares are so much alike, they are considered to be twins.

Updated: This X-class event lasted for more than 5 hours, plenty of time to lift a CME out of the sun's atmosphere. Indeed, SOHO coronagraphs have detected a bright halo CME heading directly for Earth. This is going to cause a geomagnetic storm when it arrives, probably on March 25th.

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A Scattered, Shattered Sunspot

AR3615 isn't like most other sunspots. It looks like it has been stepped on and shattered. Earlier today, Philippe Tosi of Nîmes, France, photographed the sunspot's 40+ cores and inserted a picture of Earth for scale:



Only one or two of the sunspot's primary cores are close in size to Earth. The others are about the size of moons or continents--all scattered like dice over an area some 200,000 km wide.

The unusual complexity of AR3615 is a sign of potential danger. Magnetic poles sprouting from all these cores are crowded; opposite polarities pressed together could reconnect explosively to produce a strong solar flare. Indeed, it would not be a surprise if AR3615 produced an X-flare before the coming weekend is over.

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Highs for Cycle 25

Solar Flux: 234 on January 15, 2023.

Sunspots: 227 on July 11, 2023.

Popular Propagation web sites

<https://prop.kc2g.com/> (Excellent Maximum Usable Frequency map)

NOAA <https://www.swpc.noaa.gov/>

<https://www.spaceweather.com/>

<https://www.solarham.net/>

<https://dx.qsl.net/propagation/>

A Propagation Tutorial

The solar X-ray flux tracks solar activity and solar flares. Solar flux, which can vary from as low as 50 to as high as 300, influences the level of ionization in the F2 region of the ionosphere, providing a very good prediction of HF DX conditions. The higher the solar flux, the better conditions will be for the higher HF frequencies and even 6 meters.

However, the levels need to be maintained for some days to allow ionization in the F2 layer to build up. A solar flux of 150 results in good HF band conditions, while levels of 200 and up can provide great conditions.

Large X-ray flares on the sun can increase the ionization of the D layer of the ionosphere (a lower layer) on the sunlit side of the Earth, greatly attenuating or blocking HF radio transmissions for up to a half hour. Solar flares often produce Coronal Mass Ejections (CMEs) which, if Earth directed, can lead to geomagnetic storms. Some large flares are also accompanied by strong radio bursts that may interfere with other radio frequencies and cause problems for satellite communication and radio navigation (GPS).

The Planetary K-index is a measure of the magnitude of geomagnetic storms and is an excellent indicator of disturbances in the Earth's magnetic field. A level of 1 or 2 represents quiet geomagnetic conditions; a reading of 3 or 4 may cause some propagation deterioration; 5 and 6 are minor to moderate geomagnetic storms; and 7 to 9 are strong, severe, and extreme storm conditions. Strong geomagnetic storms can trigger Auroral displays and cause HF radio blackouts. Higher geomagnetic activity also has the adverse effect of lowering maximum usable frequencies, much like lower solar

flux does.

For best conditions, the solar flux should be above 150 for a few days with the K index below 2. When these conditions are met, some good DX is likely!

-[Compiled from information on NOAA.gov and other sources]

Contest Calendar

Weekly Contests

Contest	Start UTC		End	Web Site
K1USN Slow Speed Test	Monday	0000Z	0100Z	Rules
ICWC Medium Speed Test	Monday	1300Z	1400Z	Rules
	Monday	1900Z	2000Z	
	Tuesday	0300Z	0400Z	
CWops Test (CWT)	Wednesday	1300Z	1400Z	Rules
	Wednesday	1900Z	2000Z	
	Thursday	0300Z	0400Z	
	Thursday	0700Z	0800Z	
Weekly RTTY Test	Friday	0145Z	0215Z	Rules
NCCC CW Sprint (NS)	Friday	0230Z	0300Z	Rules

Note: Start Days are in UTC, e.g. Monday at 0000Z is Sunday at 6:00 PM in the Central time zone.

Full Calendar

Contest	Start		End		Web Site
North American SSB Sprint Contest	Mar 24	0000Z	Mar 24	0400Z	Rules
CQ WW WPX Contest, SSB	Mar 30	0000Z	Mar 31	2400Z	Rules
Louisiana QSO Party	Apr 6	1400Z	Apr 7	0200Z	Rules
SP DX Contest	Apr 6	1500Z	Apr 7	1500Z	Rules
JIDX CW Contest	Apr 13	0700Z	Apr 14	1300Z	Rules
New Mexico QSO Party	Apr 13	1400Z	Apr 14	0200Z	Rules
Georgia QSO Party	Apr 13	1800Z	Apr 14	2359Z	Rules
Holyland DX Contest	Apr 19	2100Z	Apr 20	2100Z	Rules
YU DX Contest	Apr 20	0700Z	Apr 21	0659Z	Rules
CQMM DX Contest	Apr 20	0900Z	Apr 21	2359Z	Rules
Michigan QSO Party	Apr 20	1600Z	Apr 21	0400Z	Rules
Ontario QSO Party	Apr 20	1800Z	Apr 21	1800Z	Rules
ARRL Rookie Roundup, SSB	Apr 21	1800Z	Apr 21	2359Z	Rules
10-10 Int. Spring Contest, Digital	Apr 27	0001Z	Apr 28	2359Z	Rules
SP DX RTTY Contest	Apr 27	1200Z	Apr 28	1200Z	Rules

Helvetia Contest	Apr 27	1300Z	Apr 28	1259Z	Rules
Florida QSO Party	Apr 27	1600Z	Apr 28	2159Z	Rules
10-10 Int. Spring Contest, CW	May 4	0001Z	May 5	2359Z	Rules
7th Call Area QSO Party	May 4	1300Z	May 5	0700Z	Rules
Indiana QSO Party	May 4	1600Z	May 5	0400Z	Rules
Delaware QSO Party	May 4	1700Z	May 5	2359Z	Rules
New England QSO Party	May 4	2000Z	May 5	2400Z	Rules
CQ-M International DX Contest	May 11	1200Z	May 12	1159Z	Rules
His Maj. King of Spain Contest, CW	May 18	1200Z	May 19	1200Z	Rules
Arkansas QSO Party	May 18	1400Z	May 19	0200Z	Rules
Baltic Contest	May 18	2100Z	May 19	0200Z	Rules
CQ WW WPX Contest, CW	May 25	0000Z	May 26	2400Z	Rules
Kentucky QSO Party	Jun 1	1300Z	Jun 2	0100Z	Rules
ARRL Inter. Digital Contest	Jun 1	1800Z	Jun 2	2400Z	Rules
ARRL June VHF Contest	Jun 8	1800Z	Jun 10	0300Z	Rules
Stew Perry Topband Challenge	Jun 15	1500Z	Jun 16	1500Z	Rules
West Virginia QSO Party	Jun 15	1600Z	Jun 16	0400Z	Rules
ARRL Kids Day	Jun 15	1800Z	Jun 15	2359Z	Rules
His Maj. King of Spain Contest, SSB	Jun 22	1200Z	Jun 23	1200Z	Rules
Ukrainian DX DIGI Contest	Jun 22	1200Z	Jun 23	1200Z	Rules
ARRL Field Day	Jun 22	1800Z	Jun 23	2100Z	Rules

-[Contest data courtesy of the [WA7BNM Contest Calendar](#)]